Assessment Tools – PDA: Emerging Technologies and Ergonomics Applications

COL Mary Lopez

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The Voice from the Field

- Limited Resources
- Limited Time
- Limited Expertise
  - Tool Selection
  - Technical Knowledge
- Overextension

Mobile Information Technologies

- Advanced Mobile Portal Technology
- Telemedicine Issue Drivers:
  - Access to Information
    - Patient Records – History, Allergies, Lab, Pharmacy
    - Clinical Practice Guidelines
  - Data Accuracy
  - Reduce Errors
  - Patient Access – Home Healthcare, At-Risk Populations (Cardiac, Diabetes Monitoring)
- Technology Acceptance
  - 55% of physicians by 2005

Military Applications

- Mission Variety: Humanitarian → Warfighting
- Battlefield Digitization System
  - "Commanders Digital Assistant"
  - GPS and Communications Components
- Force XXI Central Digitization - Successes
  - Averted Friendly Fire
- Battlefield Questions (80%)
  - Where are you?
  - Where are my leaders?
  - What do my leaders want me to do?

Military Applications

- Mission Directions, maps, real-time GPS coordinates
- Scenario: Each soldier can:
  - Mark location changes
  - Send reports of ground observations or enemy strength
  - Send preformatted messages (“Call for fire”; “MEDEVAC”)

Military Applications

- Lighter weight (high energy battery – reduced weight ½ and doubled useful battery life)
- Projection: Field testing at Fort Bragg – could go Army-wide in a few months.
- “If you have devices that take away a lot of the confusion, they could save lives.”

Military Medical Applications

- Deployed Environments
  - Limited expertise
  - Isolation
  - Efficient and standardized records
  - Forward medical care
  - Communications

Ergonomics Applications

- Tele-Ergonomics
  - Office Assessment Example
- Excel Spreadsheet Based Tools
  - Demonstration
    - General Assessment
    - Patient Handling Tool

VDT Assessments - Another 'Voice from the Field'

- Increasing demand for office assessments
- Time required
  - Tool research
  - Tool selection
  - Workstation assessment
  - Analysis
  - Reporting

VDT Self-Assessment Program

- Local intra-net based program
- Basis: AF Level 1 Guides
- Key features:
  - Self assessment (privacy, control)
  - Contributing factors
  - Produces tailored analysis report for the worker
  - Provides other reference documents
  - SOH visibility and reporting - *Options*

VDT Self-Assessment Program

- Deployment Schedule
  - Final Beta Testing
    - Volunteers
  - Early Fall - Program available for download or e-mail
- Demonstration

Questions??